Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes; which was ordered to lie on the table; as follows:

At the end of title V of division B, insert the following:

SEC. 2528. PROHIBITION ON FUNDING FROM CHINA.

Notwithstanding any other provision of this division, an institution of higher education that receives funds under this division for a project, program, or research, as a condition of receiving such funds, shall not accept funds from the People's Republic of China for such project, program, or research.

SA 2067. Mr. DURBIN submitted an amendment intended to be proposed to amendment SA 1502 proposed by Mr. SCHUMER to the bill S. 1260, to establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes; which was ordered to lie on the table; as follows:

Strike section 2214 and insert the following:

SEC. 2214. CRITICAL MINERALS MINING AND RECYCLING RESEARCH.

(a) CRITICAL MINERALS MINING AND RECYCLING RESEARCH AND DEVELOPMENT AT THE FOUNDATION.—

(1) IN GENERAL.—In order to support supply chain resiliency, the Director shall issue awards, on a competitive basis, to institutions of higher education, nonprofit organizations, or National Laboratories (or consortia of such institutions or organizations, including consortia that collaborate with private industry) to support basic research that will accelerate innovation to advance critical minerals mining, recycling, and reclamation strategies and technologies for the purpose of making better use of domestic resources and eliminating national reliance on minerals and mineral materials that are subject to supply disruptions.

(2) USE OF FUNDS.—Activities funded by an award under this section may include—

(A) advancing mining research and development activities to develop new mapping and mining technologies and techniques, including advanced critical mineral extraction and production, to improve existing or to develop new supply chains of critical minerals, and to yield more efficient, economical, and environmentally benign mining practices;

(B) advancing critical mineral processing research activities to improve separation, alloying, manufacturing, or recycling techniques and technologies that can decrease the energy intensity, waste, potential environmental impact, and costs of those activities;

(C) advancing research and development of critical minerals mining and recycling technologies that take into account the potential end-uses and disposal of critical minerals, in order to improve end-to-end integration of mining and technological applications;

(D) conducting long-term earth observation of reclaimed mine sites, including the study of the evolution of microbial diversity at such sites;

(E) examining the application of artificial intelligence for geological exploration of critical minerals, including what size and diversity of data sets would be required;

(F) examining the application of machine learning for detection and sorting of critical minerals, including what size and diversity of data sets would be required;

(G) conducting detailed isotope studies of critical minerals and the development of more refined geologic models; or

(H) providing training and research opportunities to undergraduate and graduate students to prepare the next generation of mining engineers and researchers.

(b) CRITICAL MINERALS INTERAGENCY SUBCOMMITTEE.—

(1) IN GENERAL.—In order to support supply chain resiliency, the Critical Minerals Subcommittee of the National Science and Technology Council (referred to in this subsection as the ''Subcommittee'') shall coordinate Federal science and technology efforts to ensure secure and reliable supplies of critical minerals to the United States.

(2) PURPOSES.—The purposes of the Subcommittee shall be—

(A) to advise and assist the Committee on Homeland and National Security and the National Science and Technology Council on United States policies, procedures, and plans as it relates to critical minerals, including—

(i) Federal research, development, and deployment efforts to optimize methods for extractions, concentration, separation, and purification of conventional, secondary, and unconventional sources of critical minerals, including research that prioritizes end-to-end integration of mining and recycling techniques and the end-use target for critical minerals;

(ii) efficient use and reuse of critical minerals, including recycling technologies for critical minerals and the reclamation of critical minerals from components such as spent batteries;

(iii) addressing the technology transitions between research or lab-scale mining and recycling and commercialization of these technologies;

(iv) the critical minerals workforce of the United States; and

(v) United States private industry investments in innovation and technology transfer from federally funded science and technology;

(B) to identify emerging opportunities, stimulate international cooperation, and foster the development of secure and reliable supply chains of critical minerals, including activities related to the reuse of critical minerals via recycling;

(C) to ensure the transparency of information and data related to critical minerals; and

(D) to provide recommendations on coordination and collaboration among the research, development, and deployment programs and activities of Federal agencies to promote a secure and reliable supply of critical minerals necessary to maintain national security, economic well-being, and industrial production.

(3) RESPONSIBILITIES.—In carrying out paragraphs (1) and (2), the Subcommittee may, taking into account the findings and recommendations of relevant advisory committees—

(A) provide recommendations on how Federal agencies may improve the topographic, geologic, and geophysical mapping of the United States and improve the discoverability, accessibility, and usability of the resulting and existing data, to the extent permitted by law and subject to appropriate limitation for purposes of privacy and security;

(B) assess the progress toward developing critical minerals recycling and reprocessing technologies;

(C) assess the end-to-end lifecycle of critical minerals, including for mining, usage, recycling, and end-use material and technology requirements;

(D) examine options for accessing and developing critical minerals through investment and trade with allies and partners of the United States and provide recommendations;

(E) evaluate and provide recommendations to incentivize the development and use of advances in science and technology in the private industry;

(F) assess the need for and make recommendations to address the challenges the United States critical minerals supply chain workforce faces, including—

(i) aging and retiring personnel and faculty;

(ii) public perceptions about the nature of mining and mineral processing; and

(iii) foreign competition for United States talent;

(G) develop, and update as necessary, a strategic plan to guide Federal programs and activities to enhance—

(i) scientific and technical capabilities across critical mineral supply chains, including a roadmap that identifies key research and development needs and coordinates ongoing activities for source diversification, more efficient use, recycling, and substitution for critical minerals; and

(ii) cross-cutting mining science, data science techniques, materials science, manufacturing science and engineering, computational modeling, and environmental health and safety research and development; and

(H) report to the appropriate committees of Congress on activities and findings under this subsection.

(4) MANDATORY RESPONSIBILITIES.—In carrying out paragraphs (1) and (2), the Subcommittee shall, taking into account the findings and recommendations of the relevant advisory committees, identify and evaluate Federal policies and regulations that restrict the mining of critical minerals.

(c) GRANT PROGRAM FOR DEVELOPMENT OF CRITICAL MINERALS AND METALS .—

(1) ESTABLISHMENT.—The Secretary of Commerce, in consultation with the Director, the Secretary of the Interior, and the heads of other relevant Federal agencies, shall establish a grant program to finance pilot projects for the development of critical minerals and metals mining and recycling in the United States.

(2) LIMITATION ON GRANT AWARDS.—A grant awarded under paragraph (1) may not exceed $10,000,000.

(3) ECONOMIC VIABILITY.—In awarding grants under paragraph (1), the Secretary of Commerce shall give priority to projects that the Secretary of Commerce determines are likely to be economically viable over the long term.

(4) SECONDARY RECOVERY.—In awarding grants under paragraph (1), the Secretary of Commerce shall seek to award not less than 30 percent of the total amount of grants awarded during the fiscal year for projects relating to secondary recovery of critical minerals and metals.

(5) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary of Commerce $100,000,000 for each of fiscal years 2021 through 2024 to carry out the grant program established under paragraph (1).

(d) DEFINITIONS.—In this section:

(1) CRITICAL MINERAL; CRITICAL MINERAL OR METAL.—The terms ''critical mineral'' and ''critical mineral or metal'' include any host mineral of a critical mineral (within the

meaning of those terms in section 7002 of the Energy Act of 2020 (30 U.S.C. 1606).

(2) END-TO-END.—The term ''end-to-end'', with respect to the integration of mining or life cycle of minerals, means the integrated approach of, or the lifecycle determined by, examining the research and developmental process from the mining of the raw minerals to its processing into useful materials, its integration into components and devices, the utilization of such devices in the end-use application to satisfy certain performance metrics, and the recycling or disposal of such devices.

(3) RECYCLING.—The term ''recycling'' means the process of collecting and processing spent materials and devices and turning them into raw materials or components that can be reused either partially or completely.

(4) SECONDARY RECOVERY.—The term ''secondary recovery'' means the recovery of critical minerals and metals from discarded end-use products or from waste products produced during the metal refining and manufacturing process, including from mine waste piles, acid mine drainage sludge, or byproducts produced through legacy mining and metallurgy activities.

SA 2068. Mr. BENNET submitted an amendment intended to be proposed by him to the bill S. 1260, to establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes; which was ordered to lie on the table; as follows:

At the appropriate place, insert the following:

SEC. _____. FEDERAL PERSONNEL ISSUES.

(a) NEW OCCUPATIONAL SERIES FOR DIGITAL CAREER FIELDS.—Not later than 270 days after the date of enactment of this Act, the Office of Personnel Management shall, under section 5105 of title 5, United States Code, establish—

(1) not less than 1 new occupational series, and associated policies, covering positions in the fields of software development, software engineering, and knowledge management; and

(2) a new occupational series, and associated policies, covering positions in the field of artificial intelligence.

(b) MILITARY CAREER FIELDS FOR SOFTWARE DEVELOPMENT, DATA SCIENCE, AND ARTIFICIAL INTELLIGENCE.—Section 230 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92) is amended by adding the following new subsection:

''(d) MILITARY CAREER FIELDS.—

''(1) IN GENERAL.—Not later than 270 days after the date of the enactment of this subsection, the Chief of Staff of the Army, the Chief of Naval Operations, the Chief of Staff of the Air Force, and the Commandant of the Marine Corps (in this subsection collectively referred to as the 'Service Chiefs') shall each establish new military career fields for software development, data science, and artificial intelligence that are open to commissioned officers, enlisted personnel, and, as appropriate, warrant officers.

''(2) TECHNICAL CAREER PATHS.—The Service Chiefs shall use the authorities provided in section 605 of title 10, United States Code, and subchapter VI of chapter 36 of such title to ensure that military personnel in the career fields established under paragraph (1) who choose to specialize and focus on technical skill sets rather than pursue leadership positions are not required to move outside their specialties or into management positions to continue to promote.''.

SA 2069. Mr. WICKER submitted an amendment intended to be proposed to amendment SA 1502 proposed by Mr. SCHUMER to the bill S. 1260, to establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes; which was ordered to lie on the table; as follows:

On page 415, strike lines 13 through 18 and insert the following:

(2) by striking the period; and

(3) by adding at the end the following:

''(ii) whole cooked king crab and tanner crab and cooked king crab and tanner crab sections; and

''(iii) processed (within the meaning of section 60.119 of title 7, Code of Federal Regulations (or any successor regulations)) shrimp, unless such product is covered by the United States-Mexico-Canada Agreement.''.

SA 2070. Mr. BENNET submitted an amendment intended to be proposed by him to the bill S. 1260, to establish a new Directorate for Technology and Innovation in the National Science Foundation, to establish a regional technology hub program, to require a strategy and report on economic security, science, research, innovation, manufacturing, and job creation, to establish a critical supply chain resiliency program, and for other purposes; which was ordered to lie on the table; as follows:

At the appropriate place, insert the following:

SEC. _____. ESTABLISHMENT OF NATIONAL RESERVE DIGITAL CORPS.

(a) IN GENERAL.—Subpart I of part III of title 5, United States Code, is amended by adding at the end the following:

''CHAPTER 103—NATIONAL RESERVE DIGITAL CORPS

''§ 10301. Establishment

'' For the purposes of attracting, recruiting, and training a corps of world-class digital talent to serve the national interest and enable the Federal Government to become a digitally proficient enterprise, there is established within the Office of Management and Budget a pilot program for a civilian National Reserve Digital Corps, the members of whom shall serve as special Government employees, working not fewer than 30 days per year as short-term advisors, instructors, or developers in the Federal Government.

''§ 10302. Definitions

''In this chapter:

''(1) DIRECTOR.—The term 'Director' means the Director of the Office of Management and Budget.

''(2) NODE.—The term 'node' means a group of persons, or a team, organized under the direction of a node leader to provide digital service to not less than 1 Executive agency pursuant to an agreement between the Director and the Executive agency.

''(3) NODE LEADER.—The term 'node leader' means a full-time employee who—

''(A) is selected under this chapter to lead not less than 1 node; and

''(B) reports to the Director or the designee of the Director.

''(4) NODE MEMBER.—The term 'node member' means a special Government employee, as that term is defined in section 202 of title 18, who is selected under this division to work not fewer than 38 days per fiscal year and report to a node leader in furtherance of the mission of a node.

''§ 10303. Organization

''(a) NODES AND NODE LEADERS.—The National Reserve Digital Corps shall be organized into nodes, each of which shall be under the supervision of a node leader.

''(b) ADMINISTRATIVE SUPPORT.—The National Reserve Digital Corps shall receive funding and administrative support from the Director, who shall be responsible for selecting node leaders, establishing standards, ensuring that nodes meet Executive agency client requirements, maintaining security clearances, establishing access to an agile development environment and appropriate tools, and facilitating appropriate technical exchange meetings.

''(c) APPOINTMENT AUTHORITY.—

''(1) DIRECT APPOINTMENT AUTHORITY OF NODE MEMBERS.—

''(A) IN GENERAL.—The Director, on the recommendation of a node leader, may appoint, without regard to the provisions of subchapter I of chapter 33 (other than sections 3303 and 3328 of such chapter), a qualified candidate to a position in the competitive service in the Office of Management and Budget to serve as a node member.

''(B) RULE OF CONSTRUCTION.—Nothing in subparagraph (A) may be construed to preclude the Director from appointing additional employees, including full-time employees for the purposes described in that subparagraph.

''(2) TERM AND TEMPORARY APPOINTMENTS OF NODE MEMBERS.—The Director, on the recommendation of a node leader, may make a noncompetitive temporary appointment or term appointment, for a period of not more than 18 months, of a qualified candidate to serve as a node member in a position in the competitive service for which a critical hiring need exists, as determined under section 3304, without regard to sections 3327 and 3330.

''§ 10304. Work on behalf of Executive agencies

''(a) PURPOSE.—Each node shall undertake projects to assist Executive agencies by—

''(1) providing digital education and training;

''(2) performing data triage and providing acquisition assistance;

''(3) helping to guide digital projects and frame technical solutions;

''(4) helping to build bridges between public needs and private sector capabilities; and

''(5) performing related tasks.

''(b) AUTHORITIES.—A node may undertake a project—

''(1) on behalf of an Executive agency—

''(A) by direct agreement between the Director and the Executive agency; or

''(B) at the direction of the Director at the request of the Executive agency; or

''(2) to address a digital service need encompassing more than 1 Executive agency—

''(A) at the direction of the Director; or

''(B) on the initiative of a node leader.